

ADDITIONAL INVESTIGATION REPORT

**FORMER GASAMAT #953
3185 SANTA ROSA AVENUE
SANTA ROSA, CALIFORNIA**



GEOCON
CONSULTANTS, INC.

GEOTECHNICAL
ENVIRONMENTAL
MATERIALS

PREPARED FOR

**GASAMAT OIL CORPORATION OF COLORADO
3223 ARAPAHOE AVENUE
BOULDER, COLORADO**

GEOCON PROJECT NO. E8299-06-01

MARCH 2006



Project No. E8299-06-01
March 22, 2006

Mr. Cliff Ives
County of Sonoma Department of Health Services
Environmental Health Division
475 Aviation Boulevard, #220
Santa Rosa, California 95403

Subject: ADDITIONAL INVESTIGATION REPORT
 FORMER GASAMAT #953
 3185 SANTA ROSA AVENUE
 SANTA ROSA, CALIFORNIA

Dear Mr. Ives:

Geocon has prepared the *Additional Investigation Report* for the Former Gasamat #953 site. The report contains details of field services and laboratory analytical results.

Mr. Gallagher's authorization to submit this report is enclosed. Please contact the undersigned if you have any questions or comments.

Sincerely,

GEOCON CONSULTANTS, INC.

John Love, PG
Senior Project Geologist

JL:RWD:rjk

- (1) Addressee
- (1) RWQCB – North Coast Region
- (1) Client
- (1) UST Cleanup Fund



Richard Day, PG
Regional Manager

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ADDITIONAL INVESTIGATION REPORT

1.0 INTRODUCTION

On behalf of Gasamat Corporation of Colorado, Geocon has conducted additional soil and groundwater investigation for the Former Gasamat Station No. 953 located at 3185 Santa Rosa Avenue, Santa Rosa, Sonoma County, California (Figure 1). The additional investigation was performed in response to the County of Sonoma Department of Health Services (DHS) letter dated October 3, 2005. A copy of the letter is provided in Appendix A.

1.1 Background

In 1998 the site existed as a Gasamat gasoline station and had four underground storage tanks (USTs) containing gasoline. Two of the tanks were 8,000 gallons in capacity and the other two were 10,000 gallons in capacity.

In October 1998, a subsurface investigation was conducted in conjunction with the facility upgrade of the fuel storage and delivery system. Ten soil borings were advanced adjacent to the USTs and associated product piping. Results of the investigation indicated that petroleum hydrocarbon compounds, including methyl tertiary butyl ether (MTBE) had impacted subsurface soil and groundwater. The primary source of the contamination appeared to be a release near the south end of UST #3 (see Figure 2).

In November 1998, 16 additional soil borings were advanced to assess the lateral extent of impacted soil and groundwater beneath the site and adjacent property to the south (3219 Santa Rosa Avenue, known as Henry's Used Car Lot). As a result of the October and November 1998 investigations, four monitoring wells (MW-1 through MW-4) and two extraction wells (EW-1 and EW-2) were constructed in December 1998. Monitoring wells MW-1 and MW-2 were constructed on the Gasamat property, and MW-3 and MW-4 were constructed on the Henry's Used Car Lot property.

In November 1999, monitoring well MW-5 was constructed to provide qualitative data associated with a dual-phase extraction pilot test scheduled for extraction well EW-2 in December 1999. The only well located within a relatively close proximity of EW-2 prior to the construction of MW-5 was extraction well EW-1.

In December 1999, the pilot test was conducted at extraction well EW-2. The results of the pilot test indicated that subsurface soil and groundwater conditions were favorable towards the selection of dual-phase extraction as a remediation method at the site.

In September 2002, monitoring wells MW-6 and MW-7 were constructed to further define the lateral extent of contamination. Active remediation had not yet been conducted at the site because negotiation was underway to fund the remediation project under the State's pay-for-performance program, and the new monitoring wells (MW-6 and MW-7) would be necessary to evaluate the effectiveness of the proposed remediation system for future cleanup reimbursement purposes. The pay-for performance reimbursement mechanism was later abandoned due to regulatory costs associated with the disposal of treated groundwater.

On April 1, 2003, a workplan to *Conduct Additional Groundwater Investigation* was submitted the DHS for review. The scope of work included constructing one additional monitoring well (MW-8) at 3219 Santa Rosa Avenue (Henry's Used Car Lot) to monitor groundwater quality in the down gradient groundwater flow direction from the leaking tanks; and to advance three direct-push soil borings along the sanitary sewer line located beneath the west side of Santa Rosa Avenue to assess the likelihood that the sewer trench is functioning as a preferential pathway for subsurface contaminant migration. Between April 2003 and February 2004 the property located at 3219 Santa Rosa Avenue was sold and the new owner, Redwood Credit Union, were in the process of redeveloping the site with a new office building and paved parking lot. As a result, plans to conduct the additional groundwater investigation were delayed until construction at the Redwood Credit Union site was complete.

On February 17, 2004, a *Workplan to Abandon and Reinstall Two Groundwater Monitoring Wells* at the Redwood Credit Union site was submitted to and approved by the DHS. The wells (MW-3 and MW-4) would need to be abandoned because the site was going to be re-graded to a new elevation, and monitoring well MW-4 was positioned within the footprint of the new office building. In March 2004, monitoring wells MW-3 and MW-4 were abandoned.

On October 3, 2005, the DHS issued a letter requiring Gasamat to complete the additional groundwater investigation as presented in the April 1, 2003 workplan, and construct monitoring wells MW-9 and MW-10 as presented in the February 17, 2004 workplan. A copy of the DHS directive is provided in Appendix A.

1.2 Scope of Services

The scope of services conducted during this investigation included the following:

- Obtain access agreement with Redwood Credit Union, and drilling and encroachment permits from the DHS and Permit and Resources Management Department (PRMD), respectively;
- Conduct utility clearance;
- Advance three temporary borings along the sanitary sewer line located beneath Santa Rosa Avenue;
- Construct and develop three offsite monitoring wells (MW-8, MW-9, and MW-10) at 3219 Santa Rosa Avenue (Redwood Credit Union property); and
- Prepare report of findings.

2.0 SOIL BORING ADVANCEMENT

On February 2, 2006, Geocon advanced three soil borings (SB-1, SB-2, and SB-3) along the west side of Santa Rosa Avenue to assess whether the sanitary sewer trench was providing a pathway for the subsurface migration of petroleum hydrocarbons originating from the Former Gasamat site (see Figure 2). The sanitary sewer line consisted of an 8-inch-diameter vitrified clay pipe with an invert of approximately 7 feet bgs in the vicinity of 3185 and 3219 Santa Rosa Avenue.

Prior to advancing the temporary borings, Geocon obtained a drilling permit from the DHS and an encroachment permit from the PRMD (copies of the permits are provided in Appendix B). Underground Services Alert (USA) was notified about the impending field investigation, and Cruz Brothers Locators, a private utility locating service, was utilized to further identify potential subsurface utilities, as well as locate the borings as close as possible to the sanitary sewer line.

2.1 Direct-Push Sample Methodology

Soil borings SB-1, SB-2, and SB-3 were advanced using a direct-push sample rig provided by Gregg Drilling and Testing, Inc. Each borehole was continuously cored by driving a four-foot-long by two-inch-diameter Macrocore sampler lined with an acetate sample tube into undisturbed soil at 4-foot sample intervals until groundwater had been encountered. Soil cuttings from each sample interval were inspected for lithology and evidence of contamination, and soil samples from intervals situated immediately above first encountered groundwater were collected for laboratory analysis.

Grab-groundwater samples were collected from each borehole by installing a temporary 3/4-inch-diameter PVC well casing into the open boreholes once it was established that groundwater was present. Groundwater samples were extracted from each boring using 1/4-inch-diameter polyethylene tubing fitted with a check valve. Groundwater was forced through the tubing towards ground surface as the tubing was manually moved up and down inside the temporary well casings. Groundwater samples were collected in 40-milliliter glass vials preserved with hydrochloric acid (HCl). Upon sample collection, the glass vials were labeled and placed in a chest cooled with ice for transport to the analytical laboratory.

All soil and groundwater samples were submitted for laboratory analysis under chain-of-custody protocol to Entech Analytical Labs, Inc., a State of California-certified laboratory located in Santa Clara, California.

2.2 Subsurface Soil and Groundwater Conditions

Differing soil conditions and depths to groundwater were encountered in each soil boring location. Poor sample recovery was noted in the upper 4 feet of each borehole; presumably due to compacted base rock underlying Santa Rosa Avenue.

Sandy clay was encountered in SB-1 between 4 and 7 feet bgs. Underlying the sandy clay to a depth of 8 feet bgs was bluish green silty sand. A slight petroleum odor was observed in the silty sand. Groundwater was encountered at approximately 7 feet bgs, and it stabilized at approximately 5½ feet bgs after the sample tube and drive rods were removed from the borehole. The SB-1 borehole was terminated at 8 feet bgs.

Silty sand was encountered between 4 and 8 feet bgs in the SB-2 borehole. Underlying the silty sand was well graded sand and gravel. The sand and gravel was saturated at 9½ feet bgs, and groundwater rose to approximately 5½ feet bgs after the sample equipment was removed from the borehole. SB-2 was terminated at 12 feet bgs. No odors were observed in soil cuttings logged in soil boring SB-2.

Silty clay was encountered below 4 feet bgs in SB-3, and it extended to approximately 14½ feet bgs, where well graded sand was encountered. The well graded sand was saturated, and groundwater rose to within approximately 6½ feet of ground surface. Soil boring SB-3 was terminated at 16 feet bgs. No odors were observed in soil cuttings logged from SB-3.

Copies of the SB-1, SB-2, and SB-3 boring logs are provided in Appendix C.

2.3 Soil Sample Analysis and Results

Soil samples were collected from SB-1, SB-2, and SB-3 at non-saturated intervals above first encountered groundwater. Soil samples were collected from SB-1 at 6 to 6½ feet bgs, SB-2 at 8 to 8½ feet bgs and SB-3 at 13 to 13½ feet bgs.

All soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX), and MTBE using EPA Test Method 8260B.

TPHg was reported at a concentration of 140 micrograms per kilogram (ug/kg) in the 6-foot soil collected from SB-1, and it was reported as non-detect (<50 ug/kg) in the soil samples collected from SB-2 and SB-3 at depths of 8 and 13 feet bgs, respectively. BTEX and MTBE were reported as non-detect in all three soil samples.

All soil sample results are tabulated in Table 1, and copies of the analytical laboratory data sheets and chain of custody are provided in Appendix D.

2.4 Grab Groundwater Sample Analysis and Results

Grab groundwater samples were collected from soil borings SB-1, SB-2, and SB-3 and analyzed for TPHg, BTEX, and MTBE using EPA Test Method 80260.

TPHg was reported at concentrations of 150 micrograms per liter (ug/l) and 360 ug/l in grab groundwater samples collected from SB-1 and SB-2, respectively. TPHg was reported as non-detect (<25 ug/l) in the SB-3 grab groundwater sample.

Benzene was reported at a concentration of 120 ug/l in the SB-2 grab groundwater sample, and it was reported as non-detect in the SB-1 and SB-3 samples. MTBE was reported in all three grab groundwater samples at concentrations ranging from 22 ug/l at SB-3 to 310 ug/l at SB-1. All other target analytes were reported as non-detect in borings SB-1 through SB-3.

Grab groundwater sample results are tabulated in Table 2, and copies of the analytical laboratory data sheets are provided in Appendix D

3.0 MONITORING WELL CONSTRUCTION

On February 3, 2006 Geocon supervised the construction of monitoring wells MW-8, MW-9, and MW-10. The wells were constructed under permit from the DHS (a copy of the well construction permit is provided in Appendix A). Monitoring well MW-8 was constructed to monitor groundwater quality near the downgradient termination point (presumably) of the petroleum hydrocarbon plume, and monitoring wells MW-9 and MW-10 were constructed to replace monitoring wells MW-3 and MW-4, that were abandoned in February 2004 prior to redevelopment of the Redwood Credit Union property.

MW-8, MW-9, and MW-10 were constructed using a drill rig equipped with eight-inch-diameter hollow-stem augers provided by Gregg Drilling and Testing, Inc., a C-57 licensed contractor. The monitoring wells were constructed using two-inch-diameter polyvinyl chloride (PVC) well casings. All three wells were screened from 10 to 20 feet bgs using 0.020-inch slotted well screen and #3 sand pack. Monitoring well construction details are depicted on the boring logs provided in Appendix C, and copies of the State of California Well Completion Reports are provided in Appendix E.

On February 15, 2006, Geocon developed monitoring wells MW-8, MW-9, and MW-10. Development was accomplished by surging each well casing and then purging water and sediment from the wells using a centrifugal pump equipped with disposable polyethylene tubing. A total of ten well casing volumes were removed from each well.

On March 8, 2006, Virgil Chavez Land Surveying mobilized to the site and surveyed the top of casing elevation for the new groundwater monitoring wells (MW-8, MW-9, and MW-10). A copy of the survey report is included as Appendix F.

3.1 Soil and Groundwater Conditions

Each monitoring well borehole was logged at 5-foot sample intervals using an 18-inch-long split-spoon sampler. Soils encountered in monitoring wells MW-8 and MW-10 consisted of sandy clay from near ground surface to somewhere between 10 and 13½ feet bgs. Underlying the sandy clay in MW-8 and MW-10 was silty sand, and clayey sand, respectively. The silty sand in MW-8 was saturated; however, the clayey sand in MW-9 was not. Based on soil cuttings present on the auger flights removed from the MW-10 borehole, groundwater was likely encountered between 17 and 18 feet bgs within a clayey sand lense. The silty sand in MW-8 graded into saturated fine gravel somewhere between 15 and 19 feet bgs, and the clayey sand observed at a depth of approximately 17 feet bgs on the auger flights in the MW-10 borehole graded into a moist sandy clay around 19 feet bgs. Both MW-8 and MW-10 were terminated at 20 feet bgs. Static groundwater was measured at approximately 7 feet bgs in MW-8 and MW-10 indicating that confined groundwater conditions exist in both well locations.

Soils encountered in monitoring well MW-9 consisted of sandy clay from near ground surface to approximately 5 feet bgs. Underlying the sandy clay was clayey and silty sand to a depth somewhere between 10- and 13½-feet bgs. Below the silty sand was a saturated sand to a depth between 15½ and 18½ feet bgs. The saturated sand graded into saturated fine gravel to a depth of 20 feet bgs, the total depth of the MW-9 borehole. Since groundwater was encountered under confined conditions in the MW-9 borehole, it appears likely that a confining clay or silt may be present somewhere between 10 and 13½ feet bgs.

3.2 Soil and Groundwater Disposal

Soil cuttings generated during the advancement of soil borings SB-1, SB-2, and SB-3 were incorporated with the soil cuttings generated during the construction of monitoring wells MW-8, MW-9, and MW-10. Soil cuttings generated during the construction of monitoring wells MW-8, MW-9, and MW-10 were containerized in five 55-gallon drums. The drums were labeled and stored at 3185 Santa Rosa Avenue until they were picked for disposal on February 13, 2006 by Ecology Control Industries, Inc (ECI). ECI transported the drums under manifest to the Crosby & Overton facility in Long Beach, California for disposal. A copy of the non-hazardous waste manifest is provided in Appendix G.

Purgewater generated during the development of monitoring wells MW-8, MW-9, and MW-10 was transported back to the Geocon warehouse in Livermore, California. The purgewater will be disposed under manifest during a future drum pickup.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Soil and grab groundwater sample results obtained from borings SB-1, SB-2, and SB-3 indicate that some petroleum impacts to soil and groundwater within the sanitary sewer trench has occurred near SB-1; however, it does not appear that the trench itself has provided a preferential pathway for contaminant migration beyond that which has already occurred through shallow groundwater elsewhere.

Groundwater did not appear to be present in the trench near borings SB-2 and SB-3, nor were petroleum odors evident in soil cuttings obtained from either of these boreholes. Groundwater in borings SB-2 and SB-3 was encountered under confined conditions, below the invert depth (approximately 7½ feet bgs) of the sanitary sewer trench. As a result, TPHg, benzene, and MTBE concentrations reported in the grab groundwater samples collected from SB-2 and SB-3 are likely representative of shallow groundwater quality conditions in these areas irrespective of the sewer trench.

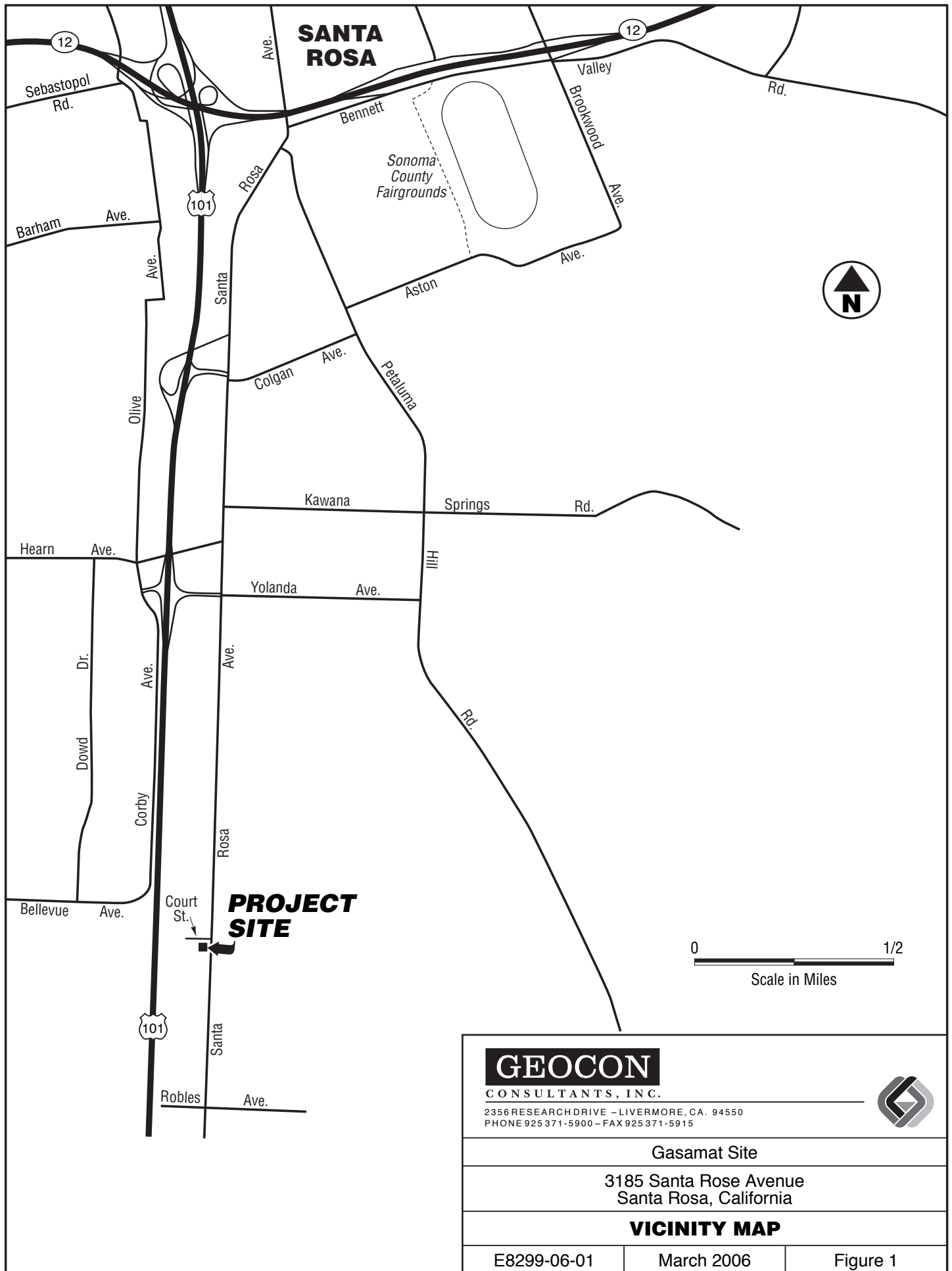
Groundwater was initially encountered in SB-1 at approximately the same depth (approximately 7 feet bgs) as the invert of the sanitary sewer line. Based on the initial depth to groundwater and the presence of TPHg at a concentration of 140 ug/kg in the soil sample collected from a depth of approximately 6 to 6½ feet bgs, it appears that some petroleum hydrocarbon impact to soils surrounding the sewer line near SB-1 has occurred; however, the impact is likely the result of petroleum hydrocarbon movement through groundwater within the smear zone, and not the result of a direct release to the sanitary sewer trench.

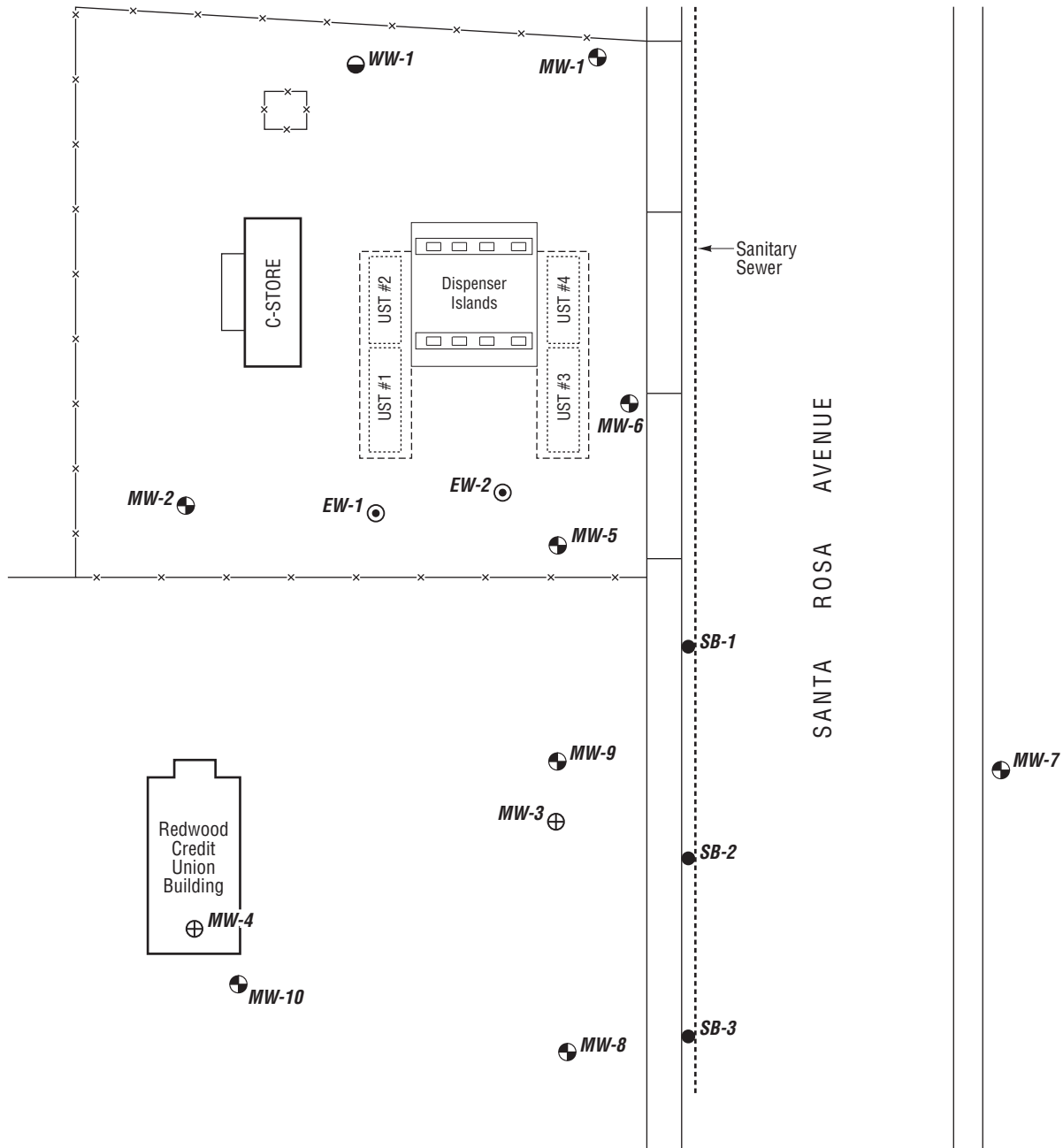
Monitoring wells MW-8, MW-9, and MW-10 were constructed and developed in February 2006, and they will be sampled in April 2006 during the second quarter groundwater sample event. Sample results obtained from these wells should provide additional offsite lateral definition to the petroleum hydrocarbon plume.

A corrective action plan (CAP) was prepared in 1999; however, the recommended remedial alternatives would have required the discharge of treated groundwater to either the storm drain under a National Pollution Discharge Elimination System (NPDES) permit or to the sanitary sewer. The feasibility of treating and discharging large volumes of MTBE-impacted groundwater to the storm drain without violating NPDES permit discharge limits (and incurring the resultant fines) is not practical. The costs associated with discharging to the sanitary sewer system are even more prohibitive given the connection and discharge fees associated with this disposal option. Neither the severity of the MTBE-impacts to groundwater, nor the costs associated with discharge to the sanitary sewer were known in 1999 when the CAP was prepared. As a result, a revised CAP was prepared in March 2003 that recommended combining source removal near UST #3 combined with insitu groundwater treatment using Fenton's Reagent and Oxygen Release Compound® (ORC). The DHS responded to

the revised CAP in a letter dated May 23, 2003, requiring that a remedial action plan (RAP) be prepared detailing the proposed corrective action.







Based on the above, Geocon recommends continuing the quarterly groundwater sampling program. Groundwater sample results obtained from monitoring wells MW-8 and MW-10 during the second quarter 2006 sample event will be useful towards assessing whether additional lateral definition of the plume is necessary. Geocon also recommends that a CAP be prepared to address contaminant concentrations in groundwater near UST #3. The CAP would evaluate the feasibility and cost-effectiveness of the recommended remedial method(s) presented in the 2003 revised CAP and ozone injection. The CAP would then be submitted for review and comments from the DHS, and a detailed RAP prepared based on the agreed upon remedial alternative.





0 50
Scale in Feet

LEGEND:

- MW-1**  Approximate Groundwater Monitoring Well Location
- MW-3**  Approximate Destroyed Well Location
- EW-1**  Approximate Soil Vapor/Co-Extraction Well Location
- WW-1**  Approximate Water Well Location
- SB-1**  Approximate Temporary Soil Boring Location
-  Approximate Former UST Location

GEOCON

CONSULTANTS, INC.

2356 RESEARCH DRIVE - LIVERMORE, CA. 94550
PHONE 925 371-5900 - FAX 925 371-5915



Gasamat Site

3185 Santa Rosa Avenue
Santa Rosa, California

SITE PLAN

E8299-06-01

March 2006

Figure 2

Table 1
Soil Sample Results
Gasamat #953
Santa Rosa, California

Location	Date	Sample Depth (feet bgs)	TPHg (ug/kg)	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Xylenes (ug/kg)	MTBE (ug/kg)
SB-1	3/2/2006	6-6.5	140	<5.0	<5.0	<5.0	<10	<5.0
SB-2	3/2/2006	8-8.5	<50	<5.0	<5.0	<5.0	<10	<5.0
SB-3	3/2/2006	13-13.5	<50	<5.0	<5.0	<5.0	<10	<5.0

Notes:

Bold tpe indicates compound reported at or above method detection limit concentration.
ug/kg - micrograms per kilogram

Table 2
Grab Groundwater Sample Results
Gasamat #953
Santa Rosa, California

Location	Date	TPHg (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethybenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)
SB-1	3/2/2006	150	<2.5	<2.5	<2.5	<2.5	310
SB-2	3/2/2006	360	120	<5.0	<5.0	<5.0	130
SB-3	3/2/2006	<25	<0.50	<0.50	<0.50	<0.50	22

Notes:

Bold tpe indicates compound reported at or above method detection limit concentration.
ug/l - micrograms per liter

APPENDIX

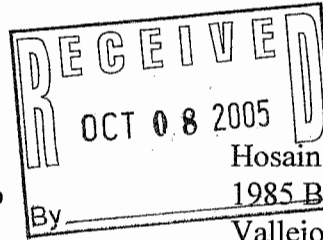
A



COUNTY of SONOMA
DEPARTMENT OF HEALTH SERVICES

Rita Scardaci, MPH – Director
Sharon Aguilera – Assistant Director

October 3, 2005



Environmental Health Division

Walter L. Kruse - Director

Mr. Michael J. Gallagher
Gasamat Oil Corporation of Colorado
3223 Arapahoe Avenue, Suite 201
Boulder, CO 80303-1092

Hosain & Fatameh Azizian
1985 Broadway Street
Vallejo, CA 94589-1907

COPY

Re: 3185 Santa Rosa Avenue, Santa Rosa—Leaking Underground Storage Tank Site
SCDHS-EHD Site #00002635, NCRWQCB #1TSO688, SWRCB Cleanup Fund #014334

To Responsible Parties:

This Department is in the process of reviewing sites that are not in compliance with previous directives or that have been inactive for extended periods. The referenced site fits both of these categories. Our files show that on February 23, 2004, Mr. Gallagher was sent a directive to replace monitoring wells located at 3219 Santa Rosa Avenue and to implement further groundwater investigation of the fuel release on site. This work was proposed by ATC Associates, Inc. in their February 17, 2004 and April 1, 2003 workplans. A due date of May 23, 2004 was established for the completion and reporting of this work, but as of this date, this Department has not received any reports, or other indication that the work has been completed. The required investigation and well replacement completion reports are now past due. You are hereby directed to implement the said ATC workplans and to submit reports on the work done. The work must be completed as conditioned by this Department's May 23, 2003, and February 23, 2004 letters (copies enclosed).

In addition, in its November 24, 2003 letter, this Department directed that an alternate water source be provided to the site facility because of reported trichloroethene (TCE) and gasoline constituents in the onsite water supply well. To date, no report has been received indicating that a potable water supply has been provided, or that the water now meets acceptable standards. It is Department's understanding that the well supplies water only to the facility bathroom. This water, however, must meet the standards of potability since it is used in the lavatory for hand washing and may be used for human consumption. The latest water sample laboratory results of October 23, 2003 showed 33 ppb of TCE, which exceeds the Maximum Contaminant Level of 5 ppb. Consequently, the water from the onsite well must be viewed as not potable. This case is, therefore, being referred to the Sonoma County Permit Resource Management Department and to Sonoma County Environmental Health Division Food and Recreation Program for enforcement of this violation. A copy of the November 24, 2003 letter is enclosed.

The due date for submittal of the reports is revised to December 3, 2005 to offer you the opportunity to come into compliance with the State Underground Storage Tank Laws and Regulations. Quarterly groundwater sampling and reporting of water supply and monitoring wells is also required but is not being done. Submittal of past due quarterly reports is due as soon as possible. Further enforcement action will be taken if reports are not received by December 3, 2005. Work plans and reports must be completed by qualified consultants. A list of qualified individuals or firms is available upon request.

Regarding Pay for Performance remediation, it is assumed that this option is no longer being pursued. When site characterization is completed, a Feasibility Study of viable cleanup alternatives will be required.

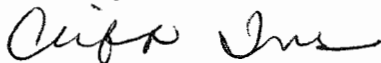
Failure to submit reports as required is a violation of the California Health and Safety Code Sections 25296.10 and 25299.76. Also, be advised that Article 5, Section 2652(d) of the California Underground Storage Tank Regulations, Title 23, Division 3, Chapter 16, California Code of Regulations, states, "Until investigation and cleanup are complete, the owner or operator shall submit reports to the local agency or Regional Water Quality Control Board, whichever is overseeing the cleanup, every three months or more frequently as specified by the agency."

Any action or inaction by this local agency associated with corrective action, including responsible party identification, is subject to petition to the State Water Resources Control Board (SWRCB). Petitions must be filed within 30 days from the date of the action/inaction. To obtain petition procedures, please refer to the SWRCB web site at <http://www.swrcb.ca.gov/cwphome/ust/cleanup/closure.html>, or telephone (916) 341-5782. You may also fax your request to the SWRCB at (916) 341-5808.

A Local Review Process is also available. Any Responsible Party that has a dispute about an action or decision by Local Oversight Program (LOP) staff may request in writing a meeting to be convened among the LOP staff overseeing the case, the LOP Supervisor, and the Responsible Party and the Responsible Party's Consultant. Regional Water Quality Control Board staff will be notified of the meeting and may attend if scheduling permits.

Please contact this Department at (707) 565-6574 if you have any questions regarding the site requirements.

Sincerely,



Cliff Ives
Senior Environmental Health Specialist
Leaking Underground Storage Tank Local Oversight Program

CI

Enclosures

c: Mr. Luis Rivera, North Coast Regional Water Quality Control Board
Mr. David Charter, SWRCB Cleanup Fund
Mr. Jeff Holtzman, Sonoma County District Attorney's Office
Ms. Rebecca Ng, Sonoma County Permit Resource Management Department
Mr. John Anderson, Sonoma County Environmental Health Division
Mr. John Love, ATC Associates Inc., 6602 Owens Drive, Pleasanton CA 94588

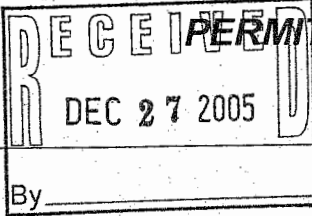
APPENDIX

**B**

COUNTY OF SONOMA

PERMIT AND RESOURCE MANAGEMENT DEPARTMENT

2550 VENTURA AVENUE, SANTA ROSA, CA 95403-2829
(707) 565-1900 FAX (707) 565-1103



Encroachment Permit # ENC05-0511

County Road Name

Road Number Postmile

SANTA ROSA AVE

7802

11.90 - 11.93

Plancheck Fee: \$0.00

Permit Fee: \$185.00

Inspection Fee: \$90.00

SUSMP Fee: \$0.00

Penalty Fee: \$0.00

Previously Paid: .00

Additional Fee(s): \$0.00

Balance Due: \$0.00

Work Site Address: 3219 SANTA ROSA AVE BEL

Type of Activity: UTILITY BORING

Parcel Number: 043-143-008

Project: 3 GEO PROBE BORINGS

Issue Date: 12/19/2005

To Expire: 12/19/2006

APPLICANT:

GEOCON CONSULTANTS, INC
2356 RESEARCH DR
LIVERMORE, CA 94550

CONTRACTOR:

GEOCON CONSULTANTS, INC
2356 RESEARCH DR
LIVERMORE, CA 94550

Contact: LOVE JOHN

925 371 5900

Bonding Co: \$2,000.00 CASH BOND

Insurance Co: GREENWICH INSURANCE CO

Bond #: REC# 1979021

Policy #: GEC000025305

Exp. Date:

Exp. Date: 01/01/2006

License #

Permittee agrees to accept all responsibility for loss or damage to any person or entity and to indemnify, hold harmless, and defend and release County of Sonoma, its agents, and employees from and against any and all liability actions, claims, damages, costs, or expenses which may be asserted by any person or entity, including Permittee, arising out of or in connection with the willful act or negligence of Permittee performing the work associated with this Encroachment Permit, whether or not there is concurrent negligence on the part of the County, but excluding liability due to the sole active negligence or sole willful misconduct of County.

THE PERMITTEE AGREES THAT THE EVENT ACTIVITY WILL BE CONDUCTED IN ACCORDANCE WITH AND SUBJECT TO THIS PERMIT'S TERMS AND CONDITIONS, THE STATE VEHICLE CODE, THE STATE STREETS AND HIGHWAYS CODE AND IS SUBJECT TO INSPECTION AND APPROVAL.

This permit is to be strictly construed and no work other than that specifically mentioned below is authorized hereby. Whenever Engineer concludes persons performing encroachment work are not complying with the provisions of this permit, Engineer may revoke permit. Subject to all the terms, conditions and restrictions written hereon or attached hereto, permission is hereby granted Permittee to:

DRILL THREE (3) SOIL BORINGS ALONG THE WEST SIDE OF SANTA ROSA AVE PER ATTACHED ATC ASSOC INC DRAWING, .32 - .35 MILES NORTH OF EAST ROBLES AVE, LOCATED IN SANTA ROSA.

ATTACHMENTS: ☐ Special Provisions
☒ Signing
☐ Standard Drawings

☒ Permit Plans
☒ Standard Conditions (8-12-92)
☒ Backfill from Approved Source

COMPLETION CERTIFICATION

APPROVED: Chris Anderson 12/20/05
DeWayne Starnes Date

Deputy Road Commissioner

Permit
Inspected By: _____

Date: _____

Road Yard: COTATI

Area No. 23

Refunds will not be authorized unless circumstances comply with established PRMD refund policy provisions.

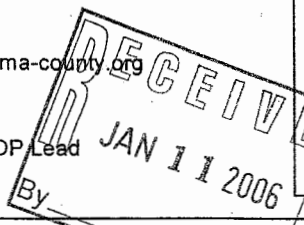
COUNTY OF SONOMA — DEPARTMENT OF HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION

475 Aviation Blvd., Suite 220, Santa Rosa, CA 95403
Phone (707) 565-6565 Fax (707) 565-6525 www.sonoma-county.org

APPLICATION FOR DRILLING PERMIT

for Regional Board Lead/Environmental Assessment / LOP Lead

For Office Use Only	
Amount paid	\$657.72
Receipt number	730B
Payment date	12/15/05
Rev. code	1343
Site ID#	21035
Permit #	4895 HMMW
	4896 HMMW



Well type: ☒ Monitoring well ☐ Recovery extraction well ☐ Boring ☐ Injection well ☐ Destruct ☐ Environmental assessment
☐ Soil gas survey ☒ Direct push ☐ Air sparging/venting ☐ Remediation well ☐ Other

Well depth 20' Boring depth 20'

On-site well/boring ID # # Off-site well/boring 3/3 C.O. 86 ID # MW-8, MW-9, MW-10

B-1, B-2, B-3

Submit legal right-of-entry/off-site well address/encroachment permit

On-site Address 3185 Santa Rosa Ave, Santa Rosa AP#

Facility Name Former Gasamat #953

On-site Owner Hosain Azizian Phone

Street 1985 Broadway St. City Vallejo State CA Zip 94589

Responsible Party Gasamat oil Corp of Colorado Phone (303) 442-2520

Street 3223 Arapahoe Ave, #201 City Boulder State CO Zip 80303

Consultant Geacon Consultants, Inc. Phone (925) 371-5900

Street 2356 Research Dr. City Livermore State CA Zip 94550

License #/Type 716050 / C57 + A

Drilling Contractor Gregg Drilling + Testing Phone (925) 313-5800

Street 950 Howe Rd. City Martinez State CA Zip 94553

C-57 License # 485165

Type of work: ☐ Initial investigation # Wells ☒ Subsequent investigation 3 # Wells ☐ Destruct # Wells

Groundwater investigation due to: ☒ Underground tank ☐ Surface impoundment ☐ Environmental assessment
☐ Surface disposal practice—specify involved industry
☐ Other

Perforated intervals Chemical constituents TPH₃, BTEX, MTBE

Disposal method for soil cuttings Landfill Disposal method for development water recycle (off-site)

Drilling method Hollow stem auger / direct push Method of drill equip. rinsate containment 55 gal drum

If destroying a well, abandonment method

Submit plot plan of wells in relation to all sewer or septic lines.

Is well to be constructed within: 100 feet of a septic tank or leachfield? ☐ Yes ☒ No
50 feet of any sanitary sewer line? ☒ Yes ☐ No
25 feet of any private sanitary sewer line? ☐ Yes ☒ No

In addition, all monitoring wells must include **identification system** affixed to interior surface:

- 1) Well identification 2) Well type 3) Well depth 4) Well casing diameter 5) Perforated intervals

Well identification number and well type shall be **affixed** to the **exterior surface** security structure.

0013430
WELL PER 657.72
TTLANT 657.72
CHECKS 657.72
CHANGE 0.00
730B #2 15:20

12/15/05

COUNTY OF SONOMA DEPARTMENT OF HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION

3273 Airway Drive, Suite D ❖ Santa Rosa, CA 95403
(707) 565-6565 ❖ FAX (707) 565-6525 ❖ www.sonoma-county.org

ATTACHMENT 3

Exemption for Proposed Monitoring Well

The proposed location(s) for installation of monitoring wells at the subject site are not in conformance with setback requirements in the water well ordinance for Sonoma County. These setback requirements were implemented to protect groundwater from possible known sources of contamination.

An exemption will be granted for well(s) MW-8, MW-9

at this subject site: 3185 Santa Rosa Ave, Santa Rosa, CA

if the following conditions are met:

1. Monitoring wells will be constructed to standards that prevent the contamination of groundwater from a sewage disposal system.
2. Monitoring wells not in conformance with minimum setback requirements shall be sampled every six (6) months for nitrate. The samples will be used as indicators of possible sewage contamination from nearby sewage lines.

I agree to comply with the above requirements for the proposed well(s):

[Signature]
Signature of Responsible Party or Agent

Geocon Consultants, Inc.
Company

Sr. Project Geologist
Title

Date

For office use only

Exemption approved [Signature]






Date 1/2/06

APPENDIX



C

PROJECT NO. E8299-06-01

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	BORING/WELL NO. <u>SB-1</u>		WELL CONSTRUCTION	HEADSPACE (PPM)	
				DATE DRILLED <u>2/2/06</u>	WATER LEVEL (ATD) <u>7'</u>			
				EQUIPMENT _____	GEOPROBE _____	DRILLER <u>GREGG DRILLING</u>		
				SOIL DESCRIPTION				
1				CONCRETE BASE ROCK , poor recovery to 4 feet				0
2								
3								
4								
5				Firm, moist, brown, sandy CLAY (CL), fine sand, low plasticity, no odor				1.4
6				Firm, moist, bluish green, sandy CLAY (CL/ML), fine sand, slight to low plasticity, no odor				
7				Firm, moist, silty SAND/clayey SAND (ML/SC), fine sand, slight to low plasticity, no odor				
8				Firm, very moist to saturated, bluish green, silty SAND (SM), no to slight plasticity, slight petroleum odor				
9				BORING TERMINATED AT 8 FEET				
10								
11								
12								
13								
14								

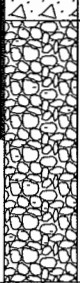
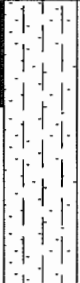


Log of Boring SB-1, page 1 of 1

ENV_WELL E8299-06-01 FORMER GASAMAT - SANTA ROSA.GPJ 03/14/06

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL:
DIAMETER & TYPE OF CASING:	WELL SEAL & INTERVAL:
CASING INTERVAL:	WELL SEAL QUANTITY:
WELL SCREEN:	ANNULUS SEAL/INTERVAL:
SCREEN INTERVAL:	ADDITIVES:
WELL COVER:	WELL DEPTH:
FILTERPACK/INTERVAL:	ENGINEER/GEOLOGIST: JOHN LOVE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES. ALL BLOW COUNTS HAVE BEEN CONVERTED TO EQUIVALENT STANDARD PENETRATION TEST (SPT) BLOW COUNTS.

PROJECT NO. E8299-06-01

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	BORING/WELL NO. <u>SB-2</u>	WELL CONSTRUCTION	HEADSPACE (PPM)
				DATE DRILLED <u>2/2/06</u> WATER LEVEL (ATD) <u>9.5'</u> EQUIPMENT _____ GEOPROBE _____ DRILLER <u>GREGG DRILLING</u>		
				SOIL DESCRIPTION		
1				CONCRETE BASE ROCK , poor recovery to 4 feet		
2						
3						
4						
5				Firm, moist, brown, silty SAND (SM), poorly graded, fine sand, no odor, poor recovery Approximately 8" well graded, moist to saturated sand at end of sample tube		0
6						
7						
8				Firm, moist, silty SAND (SM/ML), fine sand, slight plasticity, no odor		
9						
10				Loose, saturated, sandy GRAVEL (GW/SW), well graded sand, fine rounded gravel, no odor		0
11						
12				BORING TERMINATED AT 12 FEET		
13						
14						
15						
16						
17						




Log of Boring SB-2, page 1 of 1

ENV_WELL E8299-06-01 FORMER GASAMAT - SANTA ROSA.GPJ 02/15/06

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL:
DIAMETER & TYPE OF CASING:	WELL SEAL & INTERVAL:
CASING INTERVAL:	WELL SEAL QUANTITY:
WELL SCREEN:	ANNULUS SEAL/INTERVAL:
SCREEN INTERVAL:	ADDITIVES:
WELL COVER:	WELL DEPTH:
FILTERPACK/INTERVAL:	ENGINEER/GEOLOGIST: JOHN LOVE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES. ALL BLOW COUNTS HAVE BEEN CONVERTED TO EQUIVALENT STANDARD PENETRATION TEST (SPT) BLOW COUNTS.

PROJECT NO. E8299-06-01

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	BORING/WELL NO. <u>SB-3</u>		WELL CONSTRUCTION	HEADSPACE (PPM)
				DATE DRILLED <u>2/2/06</u>	WATER LEVEL (ATD) <u>14.5'</u>		
				EQUIPMENT _____	GEOPROBE _____	DRILLER <u>GREGG DRILLING</u>	
				SOIL DESCRIPTION			
1				CONCRETE			
2				BASE ROCK , poor recovery to 4 feet			
3							
4							
5				Firm, moist, brown, sandy CLAY (CL), fine sand, low to medium plasticity, no odor			0
6							
7							
8							
9							
10							0
11							
12							
13							
14							
15				Dense, saturated, well graded SAND (SW), some fine gravel, no odor			0
16				BORING TERMINATED AT 16 FEET			
17							

Log of Boring SB-3, page 1 of 1

ENV_WELL E8299-06-01 FORMER GASAMAT - SANTA ROSA.GPJ 02/15/06

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL:
DIAMETER & TYPE OF CASING:	WELL SEAL & INTERVAL:
CASING INTERVAL:	WELL SEAL QUANTITY:
WELL SCREEN:	ANNULUS SEAL/INTERVAL:
SCREEN INTERVAL:	ADDITIVES:
WELL COVER:	WELL DEPTH:
FILTERPACK/INTERVAL:	ENGINEER/GEOLOGIST: JOHN LOVE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES. ALL BLOW COUNTS HAVE BEEN CONVERTED TO EQUIVALENT STANDARD PENETRATION TEST (SPT) BLOW COUNTS.

PROJECT NO. E8299-06-01

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	BORING/WELL NO. <u>MW-8</u>	WELL CONSTRUCTION	HEADSPACE (PPM)
				DATE DRILLED <u>2/3/06</u> WATER LEVEL (ATD) <u>13.5'</u> EQUIPMENT <u>MOBILE B-61</u> DRILLER <u>GREGG DRILLING</u>		
				SOIL DESCRIPTION		
1	14		ASPHALT AND BASE			
2			Firm, moist, dark brown, sandy CLAY (CL), fine sand, low to medium plasticity, no odor			
3						
4						
5	16		Firm, moist, brown, sandy CLAY (CL), fine sand, low plasticity, no odor			0
6						
7			Firm, moist, light brown to gray, silty CLAY (CL), low to medium plasticity, no odor			
8						
9						
10	17					
11						
12						
13			Firm, saturated, brown, silty SAND (SM), predominantly fine sand with some fine gravel, no odor			
14						
15						
16	50 for 6"					
17						
18						
19			Very dense, saturated, GRAVEL (GW), well graded sand, fine, subangular to rounded gravel, no odor			0
20						
21				BORING TERMINATED AT 20 FEET		
22						
23						

Log of Boring MW-8, page 1 of 1

ENV_WELL E8299-06-01 FORMER GASAMAT - SANTA ROSA.GPJ 03/14/06

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL:
DIAMETER & TYPE OF CASING: 2" PVC	WELL SEAL & INTERVAL: BENTONITE / 7' - 9'
CASING INTERVAL: 0-20'	WELL SEAL QUANTITY:
WELL SCREEN: 0.020"	ANNULUS SEAL/INTERVAL: PORTLAND CEMENT / 0' - 7'
SCREEN INTERVAL: 10' - 20'	ADDITIVES:
WELL COVER:	WELL DEPTH: 20'
FILTERPACK/INTERVAL: #3 SAND / 9' - 20'	ENGINEER/GEOLOGIST: JOHN LOVE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES. ALL BLOW COUNTS HAVE BEEN CONVERTED TO EQUIVALENT STANDARD PENETRATION TEST (SPT) BLOW COUNTS.

PROJECT NO. E8299-06-01

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	BORING/WELL NO. <u>MW-9</u>		WELL CONSTRUCTION	HEADSPACE (PPM)
				DATE DRILLED <u>2/3/06</u>	WATER LEVEL (ATD) <u>13.5'</u>		
				EQUIPMENT <u>MOBILE B-61</u>	DRILLER <u>GREGG DRILLING</u>		
				SOIL DESCRIPTION			
1				ASPHALT AND BASE			
2				Firm, moist, dark brown to brown, sandy CLAY (CL), fine sand, low to medium plasticity, no odor			
3							
4							
5	23			Firm, moist, brown, clayey SAND (SC), fine sand, slight to low plasticity, no odor			
6							
7				Grades into silty sand			
8				Dense, moist, silty SAND/sand (SM/SW), no odor			
9	30						
10							
11				Very dense, saturated, SAND (SW), well graded sand, some fine gravel, no odor			
12							
13							
14	50 at 4"			Very dense, saturated, GRAVEL (GW), fine angular gravel, some well graded sand, no odor			
15							
16							
17				Very dense, saturated, GRAVEL (GW), fine angular gravel, some well graded sand, no odor			
18							
19	80						
20				BORING TERMINATED AT 20 FEET			
21							
22							
23							

Log of Boring MW-9, page 1 of 1

ENV_WELL E8299-06-01 FORMER GASAMAT - SANTA ROSA.GPJ 03/14/06

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL:
DIAMETER & TYPE OF CASING: 2" PVC	WELL SEAL & INTERVAL: BENTONITE / 7' - 9'
CASING INTERVAL: 0-20'	WELL SEAL QUANTITY:
WELL SCREEN: 0.020"	ANNULUS SEAL/INTERVAL: PORTLAND CEMENT / 0' - 7'
SCREEN INTERVAL: 10' - 20'	ADDITIVES:
WELL COVER:	WELL DEPTH: 20'
FILTERPACK/INTERVAL: #3 SAND / 9' - 20'	ENGINEER/GEOLOGIST: JOHN LOVE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES. ALL BLOW COUNTS HAVE BEEN CONVERTED TO EQUIVALENT STANDARD PENETRATION TEST (SPT) BLOW COUNTS.

PROJECT NO. E8299-06-01

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	BORING/WELL NO. <u>MW-10</u>		WELL CONSTRUCTION	HEADSPACE (PPM)
				DATE DRILLED <u>2/3/06</u>	WATER LEVEL (ATD) <u>17'</u>		
				EQUIPMENT <u>MOBILE B-61</u> DRILLER <u>GREGG DRILLING</u>			
				SOIL DESCRIPTION			
1				ASPHALT AND BASE			
2				Firm, moist, dark brown to brown, sandy CLAY (CL), fine sand, low to medium plasticity, no odor			
3							
4							
5	44						
6				Stiff, moist, brown with yellowish brown, sandy CLAY (CL), predominantly fine sand with some coarse sand, low plasticity, no odor			
7							
8							
9	30						
10				Very stiff, moist, brown with gray, sandy CLAY (CL), fine sand, low plasticity, no odor			
11							
12							
13							
14	18			Dense to stiff, moist, light brown, clayey SAND/sandy CLAY (SC/CL), fine sand, slight to low plasticity, no odor			
15							
16							
17							
18				Soft clayey sand on auger flights, probable water producing zone			
19	12			Dense to stiff, moist, light brown, clayey SAND/sandy CLAY (SC/CL), fine sand, slight to low plasticity, no odor			
20							
21				BORING TERMINATED AT 20 FEET			
22							
23							

Log of Boring MW-10, page 1 of 1

ENV_WELL E8299-06-01 FORMER GASAMAT - SANTA ROSA.GPJ 03/14/06

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL:
DIAMETER & TYPE OF CASING: 2" PVC	WELL SEAL & INTERVAL: BENTONITE / 7' - 9'
CASING INTERVAL: 0-20'	WELL SEAL QUANTITY:
WELL SCREEN: 0.020"	ANNULUS SEAL/INTERVAL: PORTLAND CEMENT / 0' - 7'
SCREEN INTERVAL: 10' - 20'	ADDITIVES:
WELL COVER:	WELL DEPTH: 20'
FILTERPACK/INTERVAL: #3 SAND / 9' - 20'	ENGINEER/GEOLOGIST: JOHN LOVE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES. ALL BLOW COUNTS HAVE BEEN CONVERTED TO EQUIVALENT STANDARD PENETRATION TEST (SPT) BLOW COUNTS.

APPENDIX



D

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

John Love

Geocon Consultants

2356 Research Drive

Livermore, CA 94550

Lab Certificate Number: 47698

Issued: 02/14/2006

Project Number: E8299-06-01

Global ID: T0609700489

Project Name: Gasmat

Project Location: Santa Rosa

Certificate of Analysis - Final Report

On February 03, 2006, samples were received under chain of custody for analysis.

Entech analyzes samples "as received" unless otherwise noted. The following results are included:

<u>Matrix</u>	<u>Test</u>	<u>Comments</u>
Liquid	EPA 8260B - GC/MS TPH as Gasoline by GC/MS	
Solid	Electronic Deliverables EPA 8260B - GC/MS TPH as Gasoline by GC/MS	

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).

If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,



Laurie Glantz-Murphy
Laboratory Director

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Geocon Consultants
2356 Research Drive
Livermore, CA 94550
Attn: John Love

Project Number: E8299-06-01
Project Name: Gasmat
Project Location: Santa Rosa
GlobalID: T0609700489

Certificate of Analysis - Data Report

Samples Received: 02/03/2006
Sample Collected by: Client

Lab #: 47698-001 Sample ID: SB-1

Matrix: Solid Sample Date: 2/2/2006 10:30 AM

EPA 5035A - EPA 8260B - GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/14/2006	SM3060213
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/14/2006	SM3060213
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/14/2006	SM3060213
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	2/14/2006	SM3060213
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/14/2006	SM3060213
Surrogate	Surrogate Recovery		Control Limits (%)					Analyzed by: MFelix	
4-Bromofluorobenzene	74.2		60	- 130				Reviewed by: MaiChiTu	
Dibromofluoromethane	80.0		60	- 130					
Toluene-d8	76.0		60	- 130					

EPA 5035A - TPH as Gasoline by GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	140		1.0	50	µg/Kg	N/A	N/A	2/14/2006	SM3060213
Surrogate	Surrogate Recovery		Control Limits (%)					Analyzed by: MFelix	
4-Bromofluorobenzene	68.7		60	- 130				Reviewed by: MaiChiTu	
Dibromofluoromethane	83.8		60	- 130					
Toluene-d8	72.1		60	- 130					

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Geocon Consultants
2356 Research Drive
Livermore, CA 94550
Attn: John Love

Project Number: E8299-06-01
Project Name: Gasmat
Project Location: Santa Rosa
GlobalID: T0609700489

Certificate of Analysis - Data Report

Samples Received: 02/03/2006
Sample Collected by: Client

Lab #: 47698-002 Sample ID: SB-1 Matrix: Liquid Sample Date: 2/2/2006 10:35 AM

EPA 5030C - EPA 8260B - GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		5.0	2.5	µg/L	N/A	N/A	2/10/2006	WM1060210
Toluene	ND		5.0	2.5	µg/L	N/A	N/A	2/10/2006	WM1060210
Ethyl Benzene	ND		5.0	2.5	µg/L	N/A	N/A	2/10/2006	WM1060210
Xylenes, Total	ND		5.0	2.5	µg/L	N/A	N/A	2/10/2006	WM1060210
Methyl-t-butyl Ether	310		5.0	5.0	µg/L	N/A	N/A	2/10/2006	WM1060210

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	98.2	60 - 130
Dibromofluoromethane	107	60 - 130
Toluene-d8	103	60 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

EPA 5030C - TPH as Gasoline by GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	150		5.0	120	µg/L	N/A	N/A	2/10/2006	WM1060210

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	92.5	60 - 130
Dibromofluoromethane	96.7	60 - 130
Toluene-d8	98.6	60 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Geocon Consultants
2356 Research Drive
Livermore, CA 94550
Attn: John Love

Project Number: E8299-06-01
Project Name: Gasmat
Project Location: Santa Rosa
GlobalID: T0609700489

Certificate of Analysis - Data Report

Samples Received: 02/03/2006
Sample Collected by: Client

Lab #: 47698-003 Sample ID: SB-2 Matrix: Solid Sample Date: 2/2/2006 11:00 AM

EPA 5035A - EPA 8260B - GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/11/2006	SM3060211
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/11/2006	SM3060211
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/11/2006	SM3060211
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	2/11/2006	SM3060211
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/11/2006	SM3060211

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	75.8	60 - 130
Dibromofluoromethane	80.4	60 - 130
Toluene-d8	77.0	60 - 130

Analyzed by: Mfelix
Reviewed by: MaiChiTu

EPA 5035A - TPH as Gasoline by GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	50	µg/Kg	N/A	N/A	2/11/2006	SM3060211

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	69.5	60 - 130
Dibromofluoromethane	83.4	60 - 130
Toluene-d8	72.4	60 - 130

Analyzed by: Mfelix
Reviewed by: MaiChiTu

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Geocon Consultants
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Attn: John Love

Project Number: E8299-06-01
Project Name: Gasmat
Project Location: Santa Rosa
GlobalID: T0609700489

Certificate of Analysis - Data Report

Samples Received: 02/03/2006
Sample Collected by: Client

Lab #: 47698-004

Sample ID: SB-2

Matrix: Liquid Sample Date: 2/2/2006 11:05 AM

EPA 5030C - EPA 8260B - GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	120		10	5.0	µg/L	N/A	N/A	2/10/2006	WM1060210
Toluene	ND		10	5.0	µg/L	N/A	N/A	2/10/2006	WM1060210
Ethyl Benzene	ND		10	5.0	µg/L	N/A	N/A	2/10/2006	WM1060210
Xylenes, Total	ND		10	5.0	µg/L	N/A	N/A	2/10/2006	WM1060210
Methyl-t-butyl Ether	130		10	10	µg/L	N/A	N/A	2/10/2006	WM1060210

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	100	60 - 130
Dibromofluoromethane	101	60 - 130
Toluene-d8	103	60 - 130

Analyzed by: XBian

Reviewed by: MaiChiTu

EPA 5030C - TPH as Gasoline by GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	360		10	250	µg/L	N/A	N/A	2/10/2006	WM1060210

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	94.8	60 - 130
Dibromofluoromethane	91.1	60 - 130
Toluene-d8	98.4	60 - 130

Analyzed by: XBian

Reviewed by: MaiChiTu

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Project Number: E8299-06-01
Project Name: Gasmat
Project Location: Santa Rosa
GlobalID: T0609700489

Certificate of Analysis - Data Report

Samples Received: 02/03/2006
Sample Collected by: Client

Lab #: 47698-005

Sample ID: SB-3

Matrix: Solid

Sample Date: 2/2/2006

11:35 AM

EPA 5035A - EPA 8260B - GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/14/2006	SM3060213
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/14/2006	SM3060213
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	2/14/2006	SM3060213
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	2/14/2006	SM3060213
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	2/14/2006	SM3060213

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	77.7	60 - 130
Dibromofluoromethane	76.7	60 - 130
Toluene-d8	77.8	60 - 130

Analyzed by: Mfelix

Reviewed by: MaiChiTu

EPA 5035A - TPH as Gasoline by GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	50	µg/Kg	N/A	N/A	2/14/2006	SM3060213

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	71.0	60 - 130
Dibromofluoromethane	80.7	60 - 130
Toluene-d8	73.0	60 - 130

Analyzed by: Mfelix

Reviewed by: MaiChiTu

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Attn: John Love

Project Number: E8299-06-01
Project Name: Gasmat
Project Location: Santa Rosa
GlobalID: T0609700489

Certificate of Analysis - Data Report

Samples Received: 02/03/2006
Sample Collected by: Client

Lab #: 47698-006

Sample ID: SB-3

Matrix: Liquid Sample Date: 2/2/2006 11:40 AM

EPA 5030C - EPA 8260B - GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	2/10/2006	WM1060210
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	2/10/2006	WM1060210
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	2/10/2006	WM1060210
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	2/10/2006	WM1060210
Methyl-t-butyl Ether	22		1.0	1.0	µg/L	N/A	N/A	2/10/2006	WM1060210

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	100	60 - 130
Dibromofluoromethane	107	60 - 130
Toluene-d8	103	60 - 130

Analyzed by: XBian

Reviewed by: MaiChiTu

EPA 5030C - TPH as Gasoline by GC/MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	25	µg/L	N/A	N/A	2/10/2006	WM1060210

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	94.5	60 - 130
Dibromofluoromethane	96.4	60 - 130
Toluene-d8	97.8	60 - 130

Analyzed by: XBian

Reviewed by: MaiChiTu

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Method Blank - Solid - EPA 8260B - GC/MS

QC Batch ID: SM3060211

Validated by: MaiChiTu - 02/13/06

QC Batch Analysis Date: 2/11/2006

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	5.0	µg/Kg
Ethyl Benzene	ND	1	5.0	µg/Kg
Methyl-t-butyl Ether	ND	1	5.0	µg/Kg
Toluene	ND	1	5.0	µg/Kg
Xylenes, Total	ND	1	10	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	71.9	60 - 130
Dibromofluoromethane	80.2	60 - 130
Toluene-d8	76.9	60 - 130

Method Blank - Solid - TPH as Gasoline by GC/MS

QC Batch ID: SM3060211

Validated by: MaiChiTu - 02/13/06

QC Batch Analysis Date: 2/11/2006

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	50	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	67.3	60 - 130
Dibromofluoromethane	82.4	60 - 130
Toluene-d8	73.8	60 - 130

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Method Blank - Solid - EPA 8260B - GC/MS

QC Batch ID: SM3060213

Validated by: MaiChiTu - 02/14/06

QC Batch Analysis Date: 2/13/2006

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	5.0	µg/Kg
Ethyl Benzene	ND	1	5.0	µg/Kg
Methyl-t-butyl Ether	ND	1	5.0	µg/Kg
Toluene	ND	1	5.0	µg/Kg
Xylenes, Total	ND	1	10	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	74.9	60 - 130
Dibromofluoromethane	80.6	60 - 130
Toluene-d8	77.1	60 - 130

Method Blank - Solid - TPH as Gasoline by GC/MS

QC Batch ID: SM3060213

Validated by: MaiChiTu - 02/14/06

QC Batch Analysis Date: 2/13/2006

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	50	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	69.6	60 - 130
Dibromofluoromethane	84.5	60 - 130
Toluene-d8	73.4	60 - 130

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Method Blank - Liquid - EPA 8260B - GC/MS

QC Batch ID: WM1060210

Validated by: MaiChiTu - 02/13/06

QC Batch Analysis Date: 2/10/2006

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	0.50	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
Toluene	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	97.1	60 - 130
Dibromofluoromethane	96.6	60 - 130
Toluene-d8	103	60 - 130

Method Blank - Liquid - TPH as Gasoline by GC/MS

QC Batch ID: WM1060210

Validated by: MaiChiTu - 02/13/06

QC Batch Analysis Date: 2/10/2006

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	25	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	91.5	60 - 130
Dibromofluoromethane	87.2	60 - 130
Toluene-d8	97.9	60 - 130

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LCS / LCSD - Solid - EPA 8260B - GC/MS

QC Batch ID: SM3060211

Reviewed by: MaiChiTu - 02/13/06

QC Batch ID Analysis Date: 2/11/2006

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<5.0	40	35.8	µg/Kg	89.5	70 - 135
Benzene	<5.0	40	33.6	µg/Kg	84.0	70 - 135
Chlorobenzene	<5.0	40	34.4	µg/Kg	86.0	70 - 135
Methyl-t-butyl Ether	<5.0	40	28.6	µg/Kg	71.5	70 - 135
Toluene	<5.0	40	34.1	µg/Kg	85.2	70 - 135
Trichloroethene	<5.0	40	34.7	µg/Kg	86.8	70 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	77.5	60 - 130
Dibromofluoromethane	91.5	60 - 130
Toluene-d8	80.1	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<5.0	40	40.7	µg/Kg	102	13	30.0	70 - 135
Benzene	<5.0	40	40.7	µg/Kg	102	19	30.0	70 - 135
Chlorobenzene	<5.0	40	41.2	µg/Kg	103	18	30.0	70 - 135
Methyl-t-butyl Ether	<5.0	40	31.1	µg/Kg	77.8	8.4	30.0	70 - 135
Toluene	<5.0	40	40.5	µg/Kg	101	17	30.0	70 - 135
Trichloroethene	<5.0	40	42.7	µg/Kg	107	21	30.0	70 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	75.0	60 - 130
Dibromofluoromethane	83.8	60 - 130
Toluene-d8	79.4	60 - 130

LCS / LCSD - Solid - TPH as Gasoline by GC/MS

QC Batch ID: SM3060211

Reviewed by: MaiChiTu - 02/13/06

QC Batch ID Analysis Date: 2/11/2006

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<50	250	285	µg/Kg	114	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	69.8	60 - 130
Dibromofluoromethane	80.7	60 - 130
Toluene-d8	70.5	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<50	250	254	µg/Kg	102	12	30.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	68.6	60 - 130
Dibromofluoromethane	83.0	60 - 130
Toluene-d8	71.6	60 - 130

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LCS / LCSD - Solid - EPA 8260B - GC/MS

QC Batch ID: SM3060213

Reviewed by: MaiChiTu - 02/14/06

QC Batch ID Analysis Date: 2/13/2006

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<5.0	40	43.4	µg/Kg	108	70 - 135
Benzene	<5.0	40	45.2	µg/Kg	113	70 - 135
Chlorobenzene	<5.0	40	44.7	µg/Kg	112	70 - 135
Methyl-t-butyl Ether	<5.0	40	33.3	µg/Kg	83.2	70 - 135
Toluene	<5.0	40	44.5	µg/Kg	111	70 - 135
Trichloroethene	<5.0	40	45.9	µg/Kg	115	70 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	77.9	60 - 130
Dibromofluoromethane	81.0	60 - 130
Toluene-d8	79.7	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<5.0	40	37.8	µg/Kg	94.5	14	30.0	70 - 135
Benzene	<5.0	40	41.5	µg/Kg	104	8.5	30.0	70 - 135
Chlorobenzene	<5.0	40	39.5	µg/Kg	98.8	12	30.0	70 - 135
Methyl-t-butyl Ether	<5.0	40	29.8	µg/Kg	74.5	11	30.0	70 - 135
Toluene	<5.0	40	39.0	µg/Kg	97.5	13	30.0	70 - 135
Trichloroethene	<5.0	40	42.2	µg/Kg	106	8.4	30.0	70 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	72.0	60 - 130
Dibromofluoromethane	77.3	60 - 130
Toluene-d8	77.9	60 - 130

LCS / LCSD - Solid - TPH as Gasoline by GC/MS

QC Batch ID: SM3060213

Reviewed by: MaiChiTu - 02/14/06

QC Batch ID Analysis Date: 2/13/2006

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<50	250	290	µg/Kg	116	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	67.8	60 - 130
Dibromofluoromethane	83.8	60 - 130
Toluene-d8	73.5	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<50	250	255	µg/Kg	102	13	30.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	68.1	60 - 130
Dibromofluoromethane	78.3	60 - 130
Toluene-d8	72.0	60 - 130

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LCS / LCSD - Liquid - EPA 8260B - GC/MS

QC Batch ID: WM1060210

Reviewed by: MaiChiTu - 02/13/06

QC Batch ID Analysis Date: 2/10/2006

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Benzene	<0.50	20	21.3	µg/L	106	70 - 130
Methyl-t-butyl Ether	<1.0	20	21.2	µg/L	106	70 - 130
Toluene	<0.50	20	20.2	µg/L	101	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	97.5	60 - 130
Dibromofluoromethane	99.8	60 - 130
Toluene-d8	96.9	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.50	20	21.2	µg/L	106	0.47	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	19.5	µg/L	97.5	8.4	25.0	70 - 130
Toluene	<0.50	20	20.7	µg/L	104	2.4	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	98.4	60 - 130
Dibromofluoromethane	96.3	60 - 130
Toluene-d8	97.1	60 - 130

LCS / LCSD - Liquid - TPH as Gasoline by GC/MS

QC Batch ID: WM1060210

Reviewed by: MaiChiTu - 02/13/06

QC Batch ID Analysis Date: 2/10/2006

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<25	120	129	µg/L	103	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	81.5	60 - 130
Dibromofluoromethane	76.5	60 - 130
Toluene-d8	104.0	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<25	120	144	µg/L	115	11	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	94.3	60 - 130
Dibromofluoromethane	88.4	60 - 130
Toluene-d8	99.2	60 - 130

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MS / MSD - Solid - EPA 8260B - GC/MS

QC Batch ID: SM3060211

Reviewed by: MaiChiTu - 02/13/06

QC Batch ID Analysis Date: 2/11/2006

MS Sample Spiked: 47698-003

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
Benzene	ND	40	48.6	µg/Kg	2/11/2006	122	65 - 135
Methyl-t-butyl Ether	ND	40	31.4	µg/Kg	2/11/2006	78.5	65 - 135
Toluene	ND	40	43.5	µg/Kg	2/11/2006	109	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	71.8	60 - 130
Dibromofluoromethane	81.5	60 - 130
Toluene-d8	76.2	60 - 130

MSD Sample Spiked: 47698-003

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	ND	40	46.8	µg/Kg	2/11/2006	117	3.8	30.0	65 - 135
Methyl-t-butyl Ether	ND	40	31.3	µg/Kg	2/11/2006	78.2	0.32	30.0	65 - 135
Toluene	ND	40	45.7	µg/Kg	2/11/2006	114	4.9	30.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	76.8	60 - 130
Dibromofluoromethane	82.2	60 - 130
Toluene-d8	81.4	60 - 130

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MS / MSD - Solid - EPA 8260B - GC/MS

QC Batch ID: SM3060213

Reviewed by: MaiChiTu - 02/14/06

QC Batch ID Analysis Date: 2/13/2006

MS Sample Spiked: 47795-013

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
Benzene	ND	40	44.5	µg/Kg	2/13/2006	111	65 - 135
Methyl-t-butyl Ether	ND	40	34.9	µg/Kg	2/13/2006	87.2	65 - 135
Toluene	ND	40	43.4	µg/Kg	2/13/2006	108	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	75.9	60 - 130
Dibromofluoromethane	81.4	60 - 130
Toluene-d8	78.4	60 - 130

MSD Sample Spiked: 47795-013

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	ND	40	43.0	µg/Kg	2/13/2006	108	3.4	30.0	65 - 135
Methyl-t-butyl Ether	ND	40	34.6	µg/Kg	2/13/2006	86.5	0.86	30.0	65 - 135
Toluene	ND	40	40.1	µg/Kg	2/13/2006	100	7.9	30.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	71.1	60 - 130
Dibromofluoromethane	81.3	60 - 130
Toluene-d8	76.0	60 - 130

Entech Analytical Labs, Inc.

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Chain of Custody / Analysis Request

Attention to: <u>John Love</u>		Phone No.: <u>(925) 371-5900</u>		Purchase Order No.:		Invoice to: (if Different)		Phone:	
Company Name: <u>Gecon Consultants</u>		Fax No.: <u>(925) 371-5915</u>		Project No.: <u>ES899-06-01</u>		Company:		Quote No.:	
Mailing Address: <u>2356 Research Dr.</u>		Email Address: <u>love@geconinc.com</u>		Project Name: <u>Casamart - Santa Rosa</u>		Billing Address: (if Different)			
City: <u>Livermore</u>		State: <u>CA</u>		Project Location:		City:		State:	
Zip Code: <u>94550</u>								Zip:	

Sampler:	Field Org. Code:	Turn Around Time	Global ID:	Sample	Matrix	No. of Containers	GC/MS Methods	GC Methods	General Chemistry	Remarks
<u>J. Love</u>		<input type="checkbox"/> Same Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 4 Day <input checked="" type="checkbox"/> 10 Day	<u>70609700489</u>				EPA 8260B BTEX <input checked="" type="checkbox"/> MTBE <input checked="" type="checkbox"/> TPH Gas <input checked="" type="checkbox"/> by 8260B 5 Oxygenates (MTBE, TBA, ETBA, DIPE, TAME) <input type="checkbox"/> Lead Scavengers (1,2-DCA & EDB) <input type="checkbox"/> Ethanol <input type="checkbox"/> Base/Neutral Acid Organics 8270C <input type="checkbox"/> PAH - 8270C <input type="checkbox"/> PAH - 8270C SIM <input type="checkbox"/> TPH Extractable: Diesel <input type="checkbox"/> Motor Oil <input type="checkbox"/> Other <input type="checkbox"/> w/ Si-Gel Cleanup <input type="checkbox"/> Pesticides-8081 <input type="checkbox"/> PCBs - 8082 <input type="checkbox"/> TPH as Gas/BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> by 8015M/8020 Methanol by 8015M		Anions: F <input type="checkbox"/> Cl <input type="checkbox"/> Br <input type="checkbox"/> SO4 <input type="checkbox"/> NO3 <input type="checkbox"/> NO2 <input type="checkbox"/> PO4 <input type="checkbox"/> pH <input type="checkbox"/> TSS <input type="checkbox"/> SC <input type="checkbox"/> TOC <input type="checkbox"/> TRPH <input type="checkbox"/> O & G <input type="checkbox"/> Metals - Circle Below Total <input type="checkbox"/> Dissolved <input type="checkbox"/> STLC <input type="checkbox"/> TCLP <input type="checkbox"/>	
Client ID / Field Point	Lab. No.	Date	Time							
SB-1	-201	2/2/06	10:30	S	1	X				
SB-1	-202		10:35	W	3	X				
SB-2	-002		11:00	S	1	X				
SB-2	-004		11:05	W	3	X				
SB-3	-005		11:35	S	1	X				
SB-3	-006		11:40	W	3	X				

Relinquished by: <u>[Signature]</u>	Received by: <u>[Signature]</u>	Date: <u>2/3/06</u>	Time: <u>0842</u>
Relinquished by: <u>[Signature]</u>	Received by: <u>[Signature]</u>	Date: <u>2/3/06</u>	Time: <u>1000</u>

Special Instructions or Comments

Temp 90 Acetate liner

☒ EDD Report

☐ Plating

☐ LUFT-5

☐ RCRA-8

☐ PPM-13

☐ CAM-17

Metals:

3 vials each

Al, As, Sb, Ba, Be, Bi, B, Cd, Ce, Ca, Cr, Co, Cs, Cu, Fe, Pb, Mg, Mn, Ga, Ge, Hg, In, Li, Mo, Ni, P, K, Si, Ag, Na, S, Se, Sr, Ta, Te, Ti, Sn, Tl, Zn, V, W, Zr

APPENDIX

E

Page 1 of 1Owner's Well No. mw-8No. 0926197Date Work Began 2/3/06 Ended 2/3/06Local Permit Agency County of Sonoma Department of HealthPermit No. 4895 Permit Date 1/9/06 Services

DWR USE ONLY — DO NOT FILL IN											
STATE WELL NO./STATION NO.											
LATITUDE						LONGITUDE					
APN/TRS/OTHER											

GEOLOGIC LOG

ORIENTATION () ☒ VERTICAL ☐ HORIZONTAL ☐ ANGLE ☐ (SPECIFY)DRILLING METHOD Hollow-stem FLUID

DESCRIPTION

Describe material, grain size, color, etc.

DEPTH FROM SURFACE
Ft. to Ft.See attached log

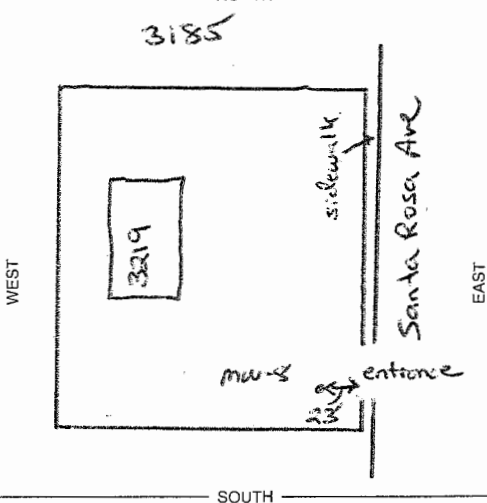
WELL OWNER

Name Gasamat Oil Corp. of ColoradoMailing Address 3223 Arapahoe Ave, #201City Boulder CO 80303Address 3219 Santa Rosa AveCity Santa RosaCounty SonomaAPN Book Page ParcelTownship Range SectionLat 38 23 54 N Long 122 42 51 W

DEG. MIN. SEC. DEG. MIN. SEC.

LOCATION SKETCH

NORTH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY ()

☒ NEW WELL

MODIFICATION/REPAIR

☐ Deepen☐ Other (Specify)☐ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

USES ()

WATER SUPPLY

☐ Domestic ☐ Public☐ Irrigation ☐ IndustrialMONITORING ☒TEST WELL ☐CATHODIC PROTECTION ☐HEAT EXCHANGE ☐DIRECT PUSH ☐INJECTION ☐VAPOR EXTRACTION ☐SPARGING ☐REMIEDIATION ☐OTHER (SPECIFY) ☐

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 13.5 (Ft.) BELOW SURFACEDEPTH OF STATIC WATER LEVEL 7 (Ft.) & DATE MEASURED 2/3/06

ESTIMATED YIELD * (GPM) & TEST TYPE

TEST LENGTH (Hrs.) TOTAL DRAWDOWN (Ft.)

* May not be representative of a well's long-term yield.

TOTAL DEPTH OF BORING 20 (Feet)TOTAL DEPTH OF COMPLETED WELL 20 (Feet)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING (S)					
		TYPE ()				MATERIAL / GRADE	INTERNAL DIAMETER (Inches)
		BLANK	SCREEN	CON- DUCTOR	FILL PIPE		
0 to 10	8	X				PVC	2
10 to 20	4		X			↓	↓

DEPTH FROM SURFACE Ft. to Ft.	ANNULAR MATERIAL			
	TYPE			
	CE- MENT ()	BEN- TONITE ()	FILL ()	FILTER PACK (TYPE/SIZE)
0 to 7	✓			
7 to 9		✓		
9 to 20			✓	#3 sand

ATTACHMENTS ()

- ☒ Geologic Log
☒ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Geocon Consultants
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)ADDRESS 2356 Research Dr. Livermore CA 94550Signed [Signature] CITY Livermore STATE CA ZIP 94550
C-57 LICENSED WATER WELL CONTRACTOR DATE SIGNED 3/1/06 C-57 LICENSE NUMBER 716050

Owner's Well No. mw-9No. 0926198Date Work Began 2/3/06, Ended 2/3/06Local Permit Agency County of Sonoma Dept. of Health ServicesPermit No. 4895 Permit Date 1/9/06

STATE OF CALIFORNIA

WELL COMPLETION REPORT

Refer to Instruction Pamphlet

DWR USE ONLY — DO NOT FILL IN

STATE WELL NO./STATION NO.

LATITUDE

LONGITUDE

APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION () ☒ VERTICAL ☐ HORIZONTAL ☐ ANGLE ☐ (SPECIFY)

DRILLING

METHOD

Hollow-stem

FLUID

DESCRIPTION

Describe material, grain size, color, etc.

DEPTH FROM

SURFACE

Ft. to Ft.

See attached log

WELL OWNER

Name Gasamut Oil Corp. of ColoradoMailing Address 3223 Ampahoe Ave, #201City Boulder

CO

80303

STATE

ZIP

WELL LOCATION

Address 3219 Santa Rosa AveCity Santa RosaCounty SonomaAPN Book Page ParcelTownship Range SectionLat 38 23 54 N Long 122 42 51 W

DEG.

MIN.

SEC.

DEG.

MIN.

SEC.

LOCATION SKETCH

NORTH

31853219mw-9

Entrance

Santa Rosa Ave

WEST

EAST

SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY ()

☒ NEW WELL

MODIFICATION/REPAIR

☐ Deepen☐ Other (Specify)☐ DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

USES ()

WATER SUPPLY

☐ Domestic ☐ Public☐ Irrigation ☐ IndustrialMONITORING ☒TEST WELL ☐CATHODIC PROTECTION ☐HEAT EXCHANGE ☐DIRECT PUSH ☐INJECTION ☐VAPOR EXTRACTION ☐SPARGING ☐REMIEDIATION ☐OTHER (SPECIFY) ☐

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 13.5 (Ft.) BELOW SURFACE

DEPTH OF STATIC

WATER LEVEL 7 (Ft.) & DATE MEASURED 2/3/06ESTIMATED YIELD * (GPM) & TEST TYPE TEST LENGTH (Hrs.) TOTAL DRAWDOWN (Ft.)

* May not be representative of a well's long-term yield.

TOTAL DEPTH OF BORING 20 (Feet)TOTAL DEPTH OF COMPLETED WELL 20 (Feet)

DEPTH FROM SURFACE			BORE-HOLE DIA. (Inches)	CASING (S)					DEPTH FROM SURFACE			ANNULAR MATERIAL			
				TYPE (<u> </u>)				MATERIAL / GRADE				INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)	TYPE
Ft.	to	Ft.	BLANK	SCREEN	CON- DUCTOR	FILL PIPE									CE- MENT (<u> </u>)
0	10		8	✓				PVC	2	Sch. 40					
10	20		↓		✓			↓	↓	↓	0.020				

ATTACHMENTS ()

- ☒ Geologic Log
☒ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Geocan Consultants
(PERSON, FIRM, OR CORPORATION) (TYPE OR PRINTED)2356 Research Dr. Livermore CA 94550
ADDRESS CITY STATE ZIPSigned [Signature] 3/1/06 716050
C-57 LICENSED WATER WELL CONTRACTOR DATE SIGNED C-57 LICENSE NUMBER

APPENDIX

F

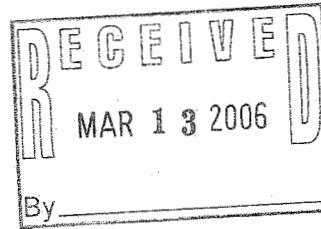
Virgil Chavez Land Surveying

721 Tuolumne Street
Vallejo, California 94590
(707) 553-2476 • Fax (707) 553-8698

March 9, 2006

Project No.: 2427-04

John Love
Geocon Consultants, Inc.
2336 Research Drive
Livermore, CA 94550



Subject: Monitoring Well Survey
Gasamat #953
3185 Santa Rosa Ave.
Santa Rosa, CA

Dear John:

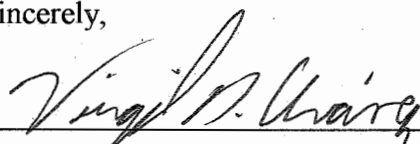
This is to confirm that we have proceeded at your request to survey the ground water monitoring wells located at the above referenced location. The survey was completed on March 8, 2006. The benchmark for this survey was a disk in mounment well located at the centerline of Santa Rosa Ave. approximately 880 South of Bellevue Ave. The latitude, longitude and coordinates are for top of casings and are based on the California State Coordinate System, Zone II (NAD83).

Benchmark Elevation = 115.151 feet (NGVD 29).

<u>Latitude</u>	<u>Longitude</u>	<u>Northing</u>	<u>Easting</u>	<u>Elev.</u>	<u>Desc.</u>
38.3985496	-122.7137552	1907768.18	6357111.46	114.53	RIM MW-8
				114.13	TOC MW-8
				115.62	RIM MW-9
38.3988299	-122.7137701	1907870.31	6357108.00	115.36	TOC MW-9
				116.06	RIM MW10
38.3986106	-122.7141581	1907791.30	6356996.16	115.70	TOC MW10



Sincerely,


Virgil D. Chavez, PLS 6323

APPENDIX

G

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest
Document No.
100-7-2-7

2. Page 1
of 1

3. Generator's Name and Mailing Address

Gasamat Oil Corp. of Colorado
3223 Arapahoe Avenue
Boulder CO 80303

Att: Chris Merritt

3185 Santa Rosa Avenue
Santa Rosa CA 95407

4. Generator's Phone (925) 371-5000

5. Transporter 1 Company Name

Ecology Control Industries

6. US EPA ID Number

CAD 0-8-2-0-3-0-1-7-3

A. Transporter's Phone

510 235-1393

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address

CROSBY & OVERTON
1830 W. 17TH STREET
LONG BEACH CA 90813

10. US EPA ID Number

CAD 0-2-8-4-0-9-0-1-0

C. Facility's Phone

562 432-5445

11. Waste Shipping Name and Description

a. Non-Hazardous, Non-Regulated Solid (Soil with Hydrocarbons)

12. Containers

No. Type

13. Total

Quantity

14. Unit

Wt/Vol

005 DM 025.00 P

b.

c.

d.

D. Additional Descriptions for Materials Listed Above

a) Profile #: 28563

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Wear appropriate PPE 24 Hour emergency contact (ECI Dispatcher) 800-321-5479
Site address: Former Gasamat-Santa Rosa, 3185 Santa Rosa Avenue, Santa Rosa, CA
Consultant: Geocon Consultants, Inc., 2356 Research Drive, Livermore, CA 94550
Weights or volumes are approximate ECI Job#: 5244787

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

Signature

Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Month Day Year

TRANSPORTER #

12-BLC-M6

Mr. John Love
Geocon Consultants, Inc.
2356 Research Drive
Livermore, CA 94550
FAX: 925-371-5915

Subject: **Additional Investigation Report**
 Former Gasamat #953
 3185 Santa Rosa Avenue
 Santa Rosa, California

Report Date: **March 22, 2006**

Dear Mr. Love:

I have reviewed and approved the above-referenced report for the Former Gasamat #953 site. Please submit the report to the County of Sonoma Health Services Department. Should either of the agencies require it, I am prepared to declare, under penalty of perjury, that to the best of my knowledge, the information contained in the subject report is true and correct.

Sincerely,

A handwritten signature in black ink that reads "Dan Gallagher". The signature is written in a cursive, flowing style.

Dan Gallagher

Date: 4-4-06